

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT**

**Permitting and Compliance Division
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**Pyramid Mountain Lumber, Inc.
SE ¼ of Section 3, Township 15 North, Range 15 West, Missoula County, Montana
P.O. Box 549
Seeley Lake, MT 59868**

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Method 9: Semi-annual Method 5: As required Method 10: As required
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		Annual and Semi-Annual
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Preconstruction Permitting		X	
Missoula City-County Air Pollution Control Program (APCP)	X		Permit #MC2965-00
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR) – includes Prevention of Significant Deterioration (PSD) and/or Non-attainment Area (NAA) NSR		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
Compliance Assurance Monitoring (CAM)		X	
State Implementation Plan (SIP)	X		General SIP

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the U.S. Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided by Pyramid Mountain Lumber, Inc. (Pyramid) in: the original Missoula County Air Quality Permit Application submitted in 1985; the original Operating Permit Application submitted to the Department of Environmental Quality (Department) on March 21, 1997; the modification request submitted on August 04, 2000; and the Operating Permit Renewal Application submitted on October 10, 2003.

B. Facility Location

Pyramid is located near Seeley Lake, Montana, on a 95-acre site. The legal description is the SE ¼ of Section 3, Township 16 North, Range 15 West, Missoula County, Montana.

C. Facility Background Information

Preconstruction Permit Background

This facility obtained a Missoula County permit on June 5, 1985. Upon determination that this facility was a Title V source, a state of Montana preconstruction permit was required. Missoula County did not have authority to issue Title V permits and relinquished preconstruction authority for these sources. Also, Pyramid was identified as having the Potential to Emit (PTE) greater than 250 tons per year of carbon monoxide (CO), which is defined as a major source according to the New Source Review (NSR) program.

On July 29, 1998, Pyramid was issued Permit #2965-00. The permit action involved transferring permitting responsibility from the Missoula City-County Health Department to the Department. During a Title V review, it was determined that Pyramid was a major facility and permitting authority belonged with the department rather than the Missoula City-County Health Department. Permit #2965-00 replaced the Missoula City-County Health Department permit for the facility.

On August 4, 2000, Pyramid submitted a permit application for the addition of a second York/Shipley Boiler to the facility located near Seeley Lake, Montana. The new 12,000-lb/hr boiler would assist the other boilers in providing steam to the facility. Pyramid also requested an increase in the capacity of the dry kilns. Furthermore, Pyramid requested that the Department reduce the CO emission limits on the facility's currently permitted Wellons and York/Shipley Boilers. The boilers were originally permitted using emission factors for "stoker boilers" rather than "fuel-cell boilers." The potential emissions from this facility initially indicated that this facility was a major source for NSR. However, the original potential emissions were based on incorrect emission factors. This facility is not a major source for NSR and was not prior to this permit action. During the public comment period, it was brought to the attention of the Department that the permit application mistakenly identified the new York/Shipley Boiler as a 10.0-MMBtu/hr boiler, instead of a 12,000-lb/hr boiler (22.2 MMBtu/hr boiler). Corrections were made in the Department Decision to reflect that change. Permit #2965-01 replaced Permit #2965-00.

In 1999, Missoula County proposed a Title V Operating Permit Program for sources that were subject to Title V, but produced less than 250 tons of any one pollutant per year. During this process, the EPA informed Missoula County and the Department that the state could not delegate authority for Title V to a local program. Rather than pursuing Title V authority directly from the EPA, Missoula County decided to retain county air quality permitting authority over the affected sources, and let the Department issue Title V Operating Permits. This county authority must be equivalent or more stringent than the Montana Air Quality Permitting Program. On July 1, 2002, air quality permitting authority was transferred back to Missoula County and Permit #MC2965-00 replaced the Department's Permit #2965-01.

Operating Permit Background

Operating Permit Application #OP2965-00 was submitted to the Department on March 21, 1997 and Permit #OP2965-00 was issued effective on January 2, 1999.

D. Current Permit Action

On October 10, 2003, the Department received a renewal application from Pyramid. Operating Permit #OP2965-01 replaces Operating Permit #OP2965-00.

E. Taking and Damaging Analysis

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications. The checklist was completed on November 25, 2003.

F. Compliance Designation

The facility was last inspected on July 30, 2004, based on the results of the inspection and material reviewed in the Department's files the facility appears to be in compliance with all the applicable requirements.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

Pyramid operates a sawmill that produces planed, dimension lumber. Logs from an on-site storage deck are debarked, cut into rough sizes, dried, planed to proper dimension, and stacked in bundles for shipment. Currently, two hog fuel fired boilers provide heat for the drying process. Once the 12,000 lb York/Shipley Boiler is installed, there will be three boilers providing heat for the drying process.

Hogged bark is chain conveyed to a storage pile. From the storage pile the bark is loaded onto a chain conveyor and transferred to the fuel storage silo above the Wellons Boiler. Hogged bark is also loaded into trucks and transferred to the York/Shipley Boiler building where it is metered into the boiler from the truck. Excess hogged bark is sold and trucked off the facility.

Sawdust is chain conveyed into a storage pile. The sawdust is then loaded into trucks and transferred off the facility. Planer shavings and chips are pneumatically conveyed and collected in an enclosed storage bin where they can be transported by trucks and sold for other purposes.

Pyramid also operates a moulder to produce tongue and groove lumber at the facility.

B. Emission Units and Pollution Control Device Identification

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	Wellons Boiler (18,000 lb/hr)	Multiclone
EU002	York/Shipley Boiler (6,000 lb/hr)	Cyclone
EU003	(6) Dry Kilns	None
EU004	Planer Blow Hog	None
EU005	Chip Bin #1 Cyclone	Cyclone is Control Device
EU006	Chip Silo Cyclone	Cyclone is Control Device
EU007	Chip Bin #2 Cyclone	Cyclone is Control Device
EU008	A-63 Planer Shavings Cyclone	Cyclone is Control Device
EU009	A-62 Planer Shavings Cyclone	Cyclone is Control Device
EU010	Blow Hog Sawdust Cyclone	Cyclone is Control Device
EU011	Moulder Surge Bin Cyclone	Cyclone is Control Device
EU012	Moulder Shavings Bin Cyclone	Cyclone is Control Device
EU013	Shavings Bin Cyclone	Cyclone is Control Device
EU014	Debarker	None
EU015	Bark Handling Fugitives	None
EU016	Chips Handling Fugitives	None
EU017	Shavings Loadout Fugitives	None
EU018	Hog Fuel Handling Fugitives	None
EU019	Sawdust Handling Fugitives	None
EU020	Sawmill Chippers	Cyclone
EU021	Cut off Saws	None
EU022	Building Vents	None
EU023	Sawdust Storage Pile Fugitives	None
EU024	Hog Fuel Storage Pile Fugitives	None
EU025	Unpaved Road Dust Emissions	Water and/or Chemical Dust Suppressant
EU026	Plant-wide Diesel Combustion	None
EU027	Plant-wide Gasoline Combustion	None
EU028	Plant-wide Propane Combustion	None
EU029	Gasoline Fuel Tank Fugitives	None
EU030	Diesel Fuel Tank Fugitives	None
EU031	York/Shipley Boiler (12,000 lb/hr) – Has not been installed	None

C. Categorically Insignificant Sources/Activities

The Administrative Rules of Montana (ARM) 17.8.1201 (22)(a) defines an insignificant emissions unit as one that emits less than 5 tons per year of any regulated pollutant, has the potential to emit less than 500 pounds per year of lead or any hazardous air pollutant, and is not regulated by an applicable requirement other than a generally applicable requirement. The following is a list of insignificant emission units at the Pyramid facility.

Emissions Unit ID	Description
EU004	Hog
EU005	Chip Bin #1 Cyclone
EU006	Chip Silo Cyclone
EU007	Chip Bin #2 Cyclone
EU010	Blow Hog Sawdust Cyclone
EU011	Moulder Surge Bin Cyclone
EU012	Moulder Shavings Bin Cyclone
EU014	Shavings Bin Cyclone
EU015	Debarker
EU016	Bark Handling Fugitives
EU017	Chips Handling Fugitives
EU018	Shavings Loadout Fugitives
EU019	Hog Fuel Handling Fugitives
EU020	Sawdust Handling Fugitives
EU021	Sawmill Chippers
EU022	Cut off Saws
EU023	Building Vents
EU024	Sawdust Storage Pile Fugitives
EU026	Plant-wide Diesel Combustion
EU027	Plant-wide Gasoline Combustion
EU028	Plant-wide Propane Combustion
EU029	Gasoline Fuel Tank Fugitives
EU030	Diesel Fuel Tank Fugitives

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

The following limits and conditions are based on Permit #MC2965-00, which was issued on June 6, 2003.

1. Pyramid shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (APCP Rule 6.504(2)).
2. Pyramid shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (APCP Rule 6.504(1)).
3. Particulate matter emissions from the Wellons Boiler are limited to 0.2 lb/MMBtu of hog fuel fired (APCP Rule 6.504(2)).
4. The Wellons Boiler is limited to 24.0 lb/hr of CO emissions (APCP Rule 6.103(1)).
5. The York/ShIPLEY 6,000-lb/hr Boiler is limited to 6.0 lb/hr of CO emissions (APCP Rule 6.103(1)).
6. The York/ShIPLEY 12,000-lb/hr Boiler is limited to 4.8 lb/hr of PM-10 emissions (APCP Rules 6.501(2) and APCP 6.501(3)).
7. The York/ShIPLEY 12,000-lb/hr Boiler is limited to 12.1 lb/hr of CO emissions (APCP Rules 6.501(2) and APCP 6.501(3)).

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance do not require the permit to impose the same level of rigor for all emission units. Furthermore, they do not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for a insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emissions units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status. Pyramid is required to perform the following tests on each emissions unit.

Emissions Unit ID	Description	Test Method	
		Testing Frequency	
EU001	Wellons Boiler	Method 9	Semi-Annually
		Method 5	As Required by the Department
		Method 10	As Required by the Department
EU002	York/Shipleigh Boiler (6,000 lb)	Method 9	Semi-Annually
		Method 5	As Required by the Department
		Method 10	As Required by the Department
EU003	Dry Kilns	Method 9	Semi-Annually
		Method 5	As Required by the Department
		Method 10	As Required by the Department
EU008	A-63 Planer Shavings Cyclone	Method 9	Semi-Annually
		Method 5	As Required by the Department
		Method 10	As Required by the Department
EU009	A-62 Planer Shavings Cyclone	Method 9	Semi-Annually
		Method 5	As Required by the Department
		Method 10	As Required by the Department
EU013	Shavings Bin Cyclone	Method 9	Semi-Annually
		Method 5	As Required by the Department
		Method 10	As Required by the Department
EU031	York/Shipleigh Boiler (12,000 lb)	Method 9	Semi-Annually
		Method 5	Within 180 days of initial start-up/ As Required by the Department thereafter
		Method 10	Within 180 days of initial start-up/ As Required by the Department thereafter

D. Recordkeeping Requirements

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least five years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with ARM 17.8.132, a public notice was published in *The Missoulian* newspaper on or before December 29, 2004. The Department provided a 30-day public comment period on the draft operating permit from December 29, 2004, to January 28, 2005. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process. The comments and issues received by January 28, 2005, are summarized, along with the Department's responses, in the following table. All comments received during the public comment period were promptly forwarded to Pyramid so they could have an opportunity to respond to these comments as well.

G. Draft Permit Comments

Summary of Public Comments

Person/Group Commenting	Comment	Department Response
Missoula City-County Health Department, January 21, 2005, comments	Section II – The summary of emission units should contain a better description of emitting unit #4 (EU004 - Hog). EU003 should specify that there are 6 dry kilns.	The additions have been made.
	The abbreviation for the Missoula City-County Air Pollution Control Program (APCP) should be added to the list of abbreviations contained in the appendices.	The addition has been made.
Tony Tweedale - MT-CHEER Alexandra Gorman - Women's Voices for the Earth	There seems to be a general lack of "statements of basis" (sb) for the permit terms.	The Department considers the Technical Review Document (TRD) to be the statement of basis for the permit. In addition, the permit terms and conditions reference the applicable requirements to clarify the statement of basis for each condition.
	There needs to be language summarizing the any credible evidence requirement in Section V.A.	The general conditions are designed to be the same for every facility. Although the Credible Evidence Requirement is not contained in Section V.A, the Credible Evidence Requirement is contained in Section V.C.5.
	The statement "as required by the Department" does not guarantee even a single test of compliance. This statement should be replaced with periodic demonstrations of compliance.	The statement "as required by the Department" allows the Department to request a test of compliance when appropriate. However, those emitting units without periodic testing are still subject to routine inspections and the review of emission inventories, semiannual monitoring reports, and annual compliance certifications as stated in Section III.A.1 of the permit.
	Various permit terms are unclear as to who can and cannot perform a Method 9 to determine compliance.	Compliance with permit terms and conditions is primarily the responsibility of the company. However, Missoula County and the Department routinely monitor Pyramid's compliance. Furthermore, the Credible Evidence Requirement allows anyone to monitor a facility's compliance as long as the appropriate performance or compliance test is performed.
	How will Pyramid verify weekly that the multiclone for EU001 is in good operating order? At a minimum, written records must be kept.	Condition III.B.12 requires Pyramid to maintain a log of the multiclone's operation status.

	Why is the smaller boiler's (EU002) cyclone control performance not checked weekly? Pyramid must keep a log of the operating conditions of the larger boiler's (EU001) multiclone why not the same for the small boiler?	The requirement to check EU001's multiclone came from a past permitting action and relates to a particulate emission limit for EU001. EU002 does not have a particulate emission limit nor can the Department establish a limit within the operating permit.
	All major EUs and their control systems should be explicitly required to operate at all times with good combustion practices, to aid enforceability of the permit.	The Department agrees that all EUs and their control systems should be operated at all times with good combustion practices. However, the operating permit contains all applicable requirements and can not establish new permit limits or conditions. APCP 5.103 requires that a facility use good combustion practices to avoid enforcement.
	Unless you specify some key parameters which must be checked in condition III.D.4.d to ensure proper operation, the required assurance of how compliance will be demonstrated will not exist for this EU.	Pyramid is responsible for the day-to-day operations of the kilns and will know best which parameters need to be checked weekly to maintain proper operation.
	Some EUs (e.g. 008, 009, & 013) require a transmissometer in-stack. Such a significant compliance method deserves to be placed in the summary table of the EU's requirements.	Permit #OP2965-01 does not contain a transmissometer requirement for any emitting unit. However, a transmissometer may be used instead of a Method 9 test to monitor compliance with the opacity limit.
	Are not Missoula County's emergency episode restrictions applicable to Pyramid, as well as the state's? If so, an OP must state all operating conditions, including that one.	The Department added the Missoula County emergency episode provisions language to the "Facility-Wide" section of the Title V permit.
	Your statement of basis must explain how EUs were determined to be insignificant (e.g. the total of Pyramid's diesel combustion criteria pollutants).	Appendix A states the requirements of ARM 17.8.1201 (22)(a) for determining insignificant emitting units.

Summary of Permittee Comments

Permit Reference	Permittee Comment	Department Response
	No Comments Received	

Summary of EPA Comments

Permit Reference	EPA Comment	Department Response
	No Comments Received	

SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS

Section IV of the Operating Permit "Non-applicable Requirements" contains the requirements that the Department determined were non-applicable. The following table summarizes the requirements that the Department has determined to be applicable including the requirements Pyramid identified as non-applicable. The following table summarizes the requirements that Pyramid identified as non-applicable and contains the reasons that the Department did not include these requirements as non-applicable in the permit.

Applicable Requirement	Reason for Not Including
ARM 17.8.120 et seq. Variance Procedures ARM 17.8.514 Air Quality Open Burning Fees	These are procedural rules that contain specific requirements that may become relevant during the permit span and are never shielded.
ARM 17.8.326 Prohibited Materials for Wood or Coal Residential Stoves	These rules are always applicable and may contain specific requirements for compliance.
ARM 17.8.330 et seq. Emission Standards for Existing Aluminum Plants ARM 17.8.401 et seq. Stack Heights and Dispersion Techniques ARM 17.8.801 et seq. Prevention of Significant Deterioration of Air Quality ARM 17.8.901 et seq. Permit Requirements for Major Stationary Sources or Modifications Located Within Non-attainment Areas ARM 17.8.1001 et seq. Preconstruction Permit Requirements for Major Stationary Sources or Major Modifications Located Within an Attainment or Unclassified Area	Rules that contain either a statement of purpose, applicability statement, regulatory definitions or a statement of incorporation by reference. These types of rules do not have specific requirements associated with them are never shielded.
Federal Requirements	
40 CFR 50 National Primary and Secondary Ambient Air Quality Standards 40 CFR 51 Requirements for Preparation, Adoption, and Submittal of Implementation Plans 40 CFR 53 Ambient Air Monitoring Reference and Equivalent Methods 40 CFR 58 Ambient Air Quality Surveillance 40 CFR 71 Federal Operating Permit Programs	These rules do not have specific requirements for major sources because they are requirements for EPA or state and local authorities. Furthermore, these rules can be used as authority to impose specific requirements on a major source
40 CFR 52 Approval and Promulgation of Implementation Plans 40 CFR 62 Approval and Promulgation of State Plans for Designated Facilities and Pollutants 40 CFR 70 State Operating Permit Programs	These rules do not have specific requirements that are always relevant to a major source and should never be listed in the applicable requirements or non-applicable requirements

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards

As of the issuance date of Permit #OP2965-01, the MACT standard contained in 40 CFR 63, Subpart DDDDD, “Industrial, Commercial and Institutional Boilers and Process Heaters” may apply to this facility. Compliance with this standard must have been accomplished by November 12, 2004, or upon startup for a new or reconstructed unit and by September 13, 2007, for existing units.

B. NESHAP Standards

As of the issuance date of Permit #OP2965-01, the only NESHAP standard that may apply to this facility is 40 CFR 61, Subpart M, “National Emission Standards for Hazardous Air Pollutants for Demolition and Renovation”; this standard is applicable to any asbestos project. The Department is unaware of any future requirement that may be promulgated that will affect this facility.

C. NSPS Standards

As of the issuance date of Permit #OP2965-01, the Department is unaware of any future NSPS Standards that may be promulgated that will affect this facility.

D. Risk Management Plan

As of the issuance date of Permit #OP2965-01, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.